

IN THE CLAIMS

1-23 (Previously cancelled or withdrawn)

24. (Currently Amended) A method of identifying a ligand that modulates activity of a *Drosophila* membrane voltage-activated sodium channel, which comprises:

- (a) expressing an isolated *Drosophila* voltage-activated sodium channel *para*, and expressing an isolated *Drosophila* voltage-activated putative beta subunit, *tipE*, in a first *Xenopus* oocyte host cell, wherein said expressing of *para* and said expressing of *tipE* occur after coinjection of *para* and *tipE* RNA, wherein said *para* RNA is encoded by the DNA molecule as set forth in SEQ ID NO: 7, and wherein the host cell resultingly expresses a voltage-activated sodium current that is tetrodotoxin sensitive;
- (b) contacting the first host cell with said ligand;
- (c) measuring the resulting voltage-activated current; and
- (d) comparing the voltage-activated current measured according to step (c) with voltage-activated current measured in a second, control *Xenopus* oocyte host cell prepared according to step (a) and not treated with said ligand.

25. (Currently Amended) A method of identifying a ligand that modulates activity of a *Drosophila* membrane voltage-activated sodium channel, which comprises:

- (a) co-expressing an isolated *Drosophila* voltage-activated sodium channel *para* and an isolated *Drosophila* voltage-activated putative beta subunit, *tipE*, in a host cell from a multicellular organism, wherein said co-expressing of *para* and *tipE* occurs after an isolated DNA molecule encoding *para* and an isolated DNA molecule encoding *tipE* are introduced into said host cell, wherein said isolated DNA molecule which encodes *para* is as set forth in SEQ ID NO: 7, and wherein the host cell resultingly expresses a voltage-activated sodium current that is tetrodotoxin sensitive;
- (b) contacting the first host cell with said ligand;
- (c) measuring the resulting voltage-activated current; and

- (d) comparing the voltage-activated current measured according to step (c) with voltage-activated current measured in a second, control *Xenopus* oocyte host cell prepared according to step (a) and not treated with said ligand.

26. (Currently Amended) A method of identifying a ligand that modulates activity of a *Drosophila* membrane voltage-activated sodium channel, which comprises:

- (a) expressing an isolated *Drosophila* voltage-activated sodium channel *para*, and expressing an isolated *Drosophila* voltage activated putative beta subunit *tipE*, in a host cell selected from the group consisting of *Xenopus* oocytes and a cell from a multicellular organism, wherein an isolated DNA molecule which expresses *para* comprises a DNA sequence as set forth in SEQ ID NO: 7, and wherein the host cell resultingly expresses a voltage-activated sodium current that is tetrodotoxin sensitive;
- (b) contacting the first host cell with said ligand;
- (c) measuring the resulting voltage-activated current;
- (d) comparing the voltage-activated current measured according to step (c) with voltage-activated current measured in a second, control *Xenopus* oocyte host cell prepared according to step (a) and not treated with said ligand; and
- (e) comparing the voltage-activated current measured according to step (c) with voltage-activated current produced prior to contacting the host cell with the ligand.

27. (Previously Added) The method of claim 24, additionally comprising comparing the voltage-activated current measured according to step (c) with voltage-activated current measured upon contacting said ligand with a third control host cell in which said *para* and said *tipE* are not co-expressed.

28. (Previously Added) The method of claim 25, additionally comprising comparing the voltage-activated current measured according to step (c) with voltage-activated current measured upon contacting said ligand with a third control host cell in which said *para* and said *tipE* are not co-expressed.

29. (Previously Added) The method of claim 26, additionally comprising comparing the voltage-activated current measured according to step (c) with voltage-activated current measured upon contacting said ligand with a third control host cell in which said *para* and said *nipE* are not co-expressed.